

2011  
2012

# ANNUAL REPORT

Engineering Career Resource Center



# Welcome



I am pleased to share with you the 2011-2012 issue of the Engineering Career Resource Center (ECRC) Annual Report. The report contains information on the post-graduation activities of December 2011 – August 2012 graduates and hiring activity for the College of Engineering Internship and Cooperative Education Program (Co-op).

This year showed salaries and hiring were solid as Michigan Engineers were highly sought by numerous employers. Bachelor's level students reported an increase in accepting full-time employment over graduate school. Co-op participants were up over 200% this year.

The ECRC also provided a range of services to graduate and undergraduate students and alumni of the College. As always, our goal is to assist students in gaining valuable professional experiences that will help them make a successful transition from school to career. We focused on resume writing, interviewing skills, mock interviews and job search strategies. We look forward to another exciting year.

Sincerely,

A handwritten signature in black ink that reads "Kerri Boivin". The script is cursive and elegant.

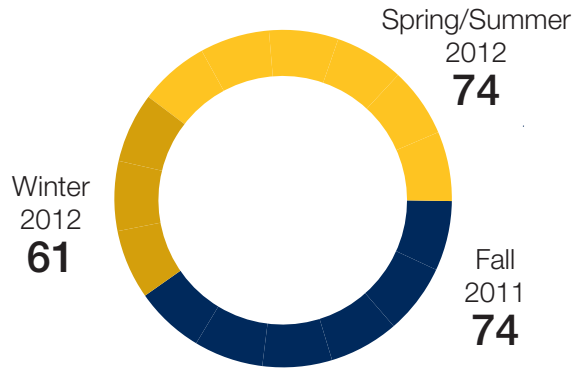
Kerri Boivin  
Director, Engineering Career Resource Center  
College of Engineering  
University of Michigan

# Cooperative Education

The Cooperative Education Program (Co-op) enables students to alternate school and work terms and apply their skills to the work setting. In addition to providing a source of valuable talent, co-op students offer employers an opportunity to identify qualified candidates prior to graduation. Ideally, co-op is eight-months of hands-on engineering experience, occurring either May through December or January through August.

## Registered Co-op Students

Total  
**209**



## Co-op Salaries and Hires

Program†	Hires††	Median Monthly Salary	Average Monthly Salary
Aerospace Engineering	13	\$3,279	\$3,332
Biomedical Engineering	4	\$3,250	\$3,315
Chemical Engineering	25	\$3,241	\$3,618
Civil Engineering	2	-	\$2,877
Computer Engineering	8	\$3,001	\$3,328
Computer Science	19	\$4,853	\$4,642
Electrical Engineering	18	\$3,293	\$3,349
Engineering (undeclared)	5	\$3,467	\$3,259
Industrial & Operations Engineering	30	\$3,326	\$3,305
Mechanical Engineering	44	\$3,293	\$3,364
Naval Architecture & Marine Engineering	5	\$2,947	\$2,999

† Programs with only one submission were omitted.

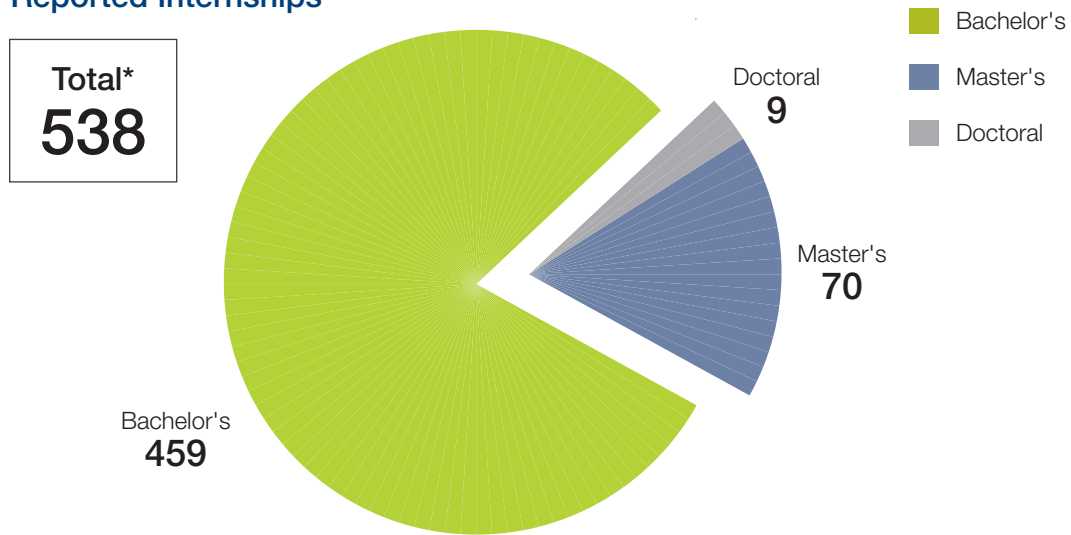
†† 36 students reported hires, but did not provide salary information. Their data was omitted.



# Internships

Internships are popular amongst U-M engineering and computer science students. Students have the opportunity to gain valuable work experience in an engineering environment. The assignments typically occur May through August and may be in locations all over the world. Many students at the College participate in internships. **The internships in this publication only include those that were reported to the ECRC.**

## Reported Internships\*



\* Data only reflects internships reported to the ECRC.



## Bachelor's Internship Salaries and Hires

Program <sup>†</sup>	Hires <sup>††</sup>	Median Monthly Salary	Average Monthly Salary
Aerospace Engineering	25	\$3,727	\$3,848
Biomedical Engineering	7	\$3,423	\$3,511
Chemical Engineering	44	\$3,987	\$4,034
Civil Engineering	15	\$2,709	\$2,751
Computer Engineering	29	\$3,727	\$4,063
Computer Science	68	\$4,160	\$4,524
Earth System Science & Engineering	2	-	\$3,521
Electrical Engineering	33	\$3,640	\$3,941
Engineering Physics	3	\$2,773	\$2,625
Engineering (undeclared)	9	\$2,600	\$3,050
Industrial & Operations Engineering	56	\$3,566	\$3,614
Materials Science & Engineering	6	\$3,423	\$3,532
Mechanical Engineering	74	\$3,467	\$3,577
Naval Architecture & Marine Engineering	8	\$3,635	\$3,580
Nuclear Engineering & Radiological Sciences	6	\$2,866	\$2,905
<b>Total</b>	<b>385</b>		

<sup>†</sup> Programs with only one submission were omitted.

<sup>††</sup> 92 students from the different degree levels reported hires, but did not provide salary information. Their data was omitted.



## Master's Internship Salaries and Hires

Program <sup>†</sup>	Hires <sup>††</sup>	Median Monthly Salary	Average Monthly Salary
Aerospace Engineering	4	\$3,770	\$3,781
Biomedical Engineering	2	-	\$4,420
Civil Engineering	3	\$3,293	\$3,322
Computer Science & Engineering	12	\$6,392	\$6,338
Electrical Engineering	7	\$5,633	\$5,864
Electrical Engineering: Systems	15	\$5,200	\$4,875
Financial Engineering	2	-	\$7,313
Industrial & Operations Engineering	4	\$4,227	\$4,242
Mechanical Engineering	8	\$4,128	\$4,270
<b>Total</b>	<b>57</b>		

<sup>†</sup> Programs with only one submission were omitted.

<sup>††</sup> 92 students from the different degree levels reported hires, but did not provide salary information. Their data was omitted.



# Bachelor's Graduates

## Post-graduation Plans

Accepted full-time job offers



Continuing education



Seeking employment



Other





## Job Acceptances by Program

	Respondents*	Base Salary Information		
		Median	Average	Range
Aerospace Engineering	32	\$60,000	\$58,416	\$31,000 - 72,000
Biomedical Engineering	3	\$58,000	\$47,667	\$25,000 - 60,000
Chemical Engineering	42	\$66,000	\$64,934	\$37,500 - 85,000
Civil Engineering	14	\$53,500	\$52,314	\$30,000 - 70,000
Computer Engineering	21	\$65,000	\$70,545	\$44,000 - 95,000
Computer Science	56	\$77,500	\$77,259	\$50,000 - 100,000
Electrical Engineering	25	\$64,200	\$62,169	\$42,000 - 70,715
Industrial & Operations Engineering	83	\$62,500	\$61,878	\$30,000 - 100,000
Materials Science & Engineering	8	\$59,660	\$56,165	\$30,000 - 75,000
Mechanical Engineering	48	\$63,000	\$64,646	\$50,000 - 92,000
Naval Architecture & Marine Engineering	5	\$60,000	\$59,200	\$56,000 - 60,000
Nuclear Engineering & Radiological Sciences	4	\$63,500	\$63,250	\$60,000 - 66,000

\* Categories with two or less respondents were omitted.



## Job Acceptances by Region

			Base Salary Information		
			Median	Average	Range
Midwest	IA, IL, IN, KS, MI, MN, MO, NE, ND, OH, SD, WI	171	\$62,088	\$61,397	\$25,000 - 100,000
West	AK, CA, HI, ID, MT, NV, OR, UT, WA, WY	44	\$73,220	\$76,292	\$49,000 - 100,000
Northeast	CT, MA, ME, NH, NJ, NY, RI, VT	21	\$66,500	\$66,781	\$54,500 - 90,000
Southwest	AZ, CO, NM, OK, TX	19	\$69,000	\$67,479	\$45,000 - 92,000
South	AL, FL, GA, KY, LA, MS, NC, SC, TN	18	\$61,500	\$58,917	\$31,000 - 83,500
Mid-Atlantic	DC, DE, MD, PA, VA, WV	8	\$65,500	\$67,077	\$53,000 - 85,000
International		3	\$63,000	\$71,667	\$52,000 - 100,000

## Job Acceptances by State (Top 7)



Respondents	
Michigan	102
Illinois	40
Washington	23
California	17
Texas	13
New York	10
Ohio	9



## Job Acceptances by Sector

	Respondents*	Base Salary Information		
		Median	Average	Range
Aerospace & Defense	26	\$65,000	\$63,201	\$49,000 - 70,715
Automotive & Transport Equipment	47	\$62,400	\$60,599	\$30,000 - 72,000
Chemicals	12	\$64,500	\$61,963	\$30,000 - 70,000
Computer Hardware	15	\$70,000	\$74,063	\$63,500 - 94,000
Computer Software & Services	53	\$80,000	\$76,030	\$45,000 - 100,000
Consulting	42	\$65,700	\$65,448	\$55,000 - 76,500
Consumer Products	11	\$60,000	\$59,436	\$45,000 - 69,000
Education/Academia	3	\$45,000	\$40,667	\$25,000 - 52,000
Energy	21	\$70,000	\$72,000	\$55,000 - 92,000
Engineering Services	25	\$56,000	\$57,648	\$30,000 - 100,000
Financial Services	19	\$62,000	\$64,500	\$27,000 - 100,000
Government	8	\$47,500	\$46,750	\$31,000 - 60,000
Healthcare Products & Services	6	\$60,000	\$60,500	\$60,000 - 63,000
Manufacturing	15	\$62,000	\$58,750	\$37,500 - 66,840
Marketing	4	\$60,000	\$60,500	\$60,000 - 62,000
Materials & Construction	4	\$56,000	\$55,125	\$48,000 - 60,500
Pharmaceutical	5	\$63,000	\$60,120	\$42,000 - 68,000
Transportation	5	\$62,000	\$61,002	\$50,000 - 67,008

\* Categories with two or less respondents were omitted.



# Master's Graduates

## Post-graduation Plans

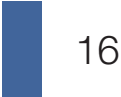
Accepted full-time job offers



Continuing education



Seeking employment



Other



## Job Acceptances by Program

	Respondents*	Base Salary Information		
		Median	Average	Range
Aerospace Engineering	10	\$70,450	\$72,890	\$60,000 - 90,000
Biomedical Engineering	14	\$65,000	\$65,643	\$56,000 - 80,000
Civil Engineering	7	\$62,040	\$61,826	\$45,000 - 80,000
Computer Science & Engineering	19	\$85,000	\$88,595	\$60,000 - 150,000
Electrical Engineering	14	\$83,250	\$82,286	\$40,000 - 105,000
Electrical Engineering: Systems	14	\$83,758	\$83,965	\$70,000 - 100,500
Energy Systems Engineering	7	\$70,000	\$69,341	\$58,000 - 78,000
Financial Engineering	3	\$80,000	\$86,000	\$80,000 - 98,000
Industrial & Operations Engineering	28	\$70,000	\$71,014	\$54,000 - 130,000
Manufacturing Engineering	4	\$110,500	\$101,775	\$68,000 - 118,100
Mechanical Engineering	32	\$74,700	\$75,226	\$58,000 - 120,000
Naval Architecture & Marine Engineering	9	\$80,000	\$79,222	\$60,000 - 94,000
Nuclear Engineering & Radiological Sciences	4	\$68,000	\$65,750	\$54,000 - 73,000

\* Categories with two or less respondents were omitted.



## Job Acceptances by Region

			Base Salary Information		
			Respondents	Median	Average
Midwest	IA, IL, IN, KS, MI, MN, MO, NE, ND, OH, SD, WI	83	\$68,414	\$70,000	\$40,000 - 89,440
West	AK, CA, HI, ID, MT, NV, OR, UT, WA, WY	40	\$88,068	\$87,500	\$55,000 - 150,000
Southwest	AZ, CO, NM, OK, TX	16	\$82,456	\$80,000	\$68,000 - 120,000
Northeast	CT, MA, ME, NH, NJ, NY, RI, VT	11	\$79,173	\$72,000	\$62,000 - 130,000
South	AL, FL, GA, KY, LA, MS, NC, SC, TN	8	\$77,938	\$79,000	\$60,000 - 90,000
Mid-Atlantic	DC, DE, MD, PA, VA, WV	5	\$81,000	\$80,000	\$66,000 - 94,000
International		4	\$87,250	\$91,500	\$60,000 - 106,000

## Job Acceptances by State (Top 7)



	Respondents
Michigan	46
California	21
Illinois	19
Washington	14
Texas	9
Indiana	9
New York	8



## Job Acceptances by Sector

	Respondents*	Base Salary Information		
		Median	Average	Range
Aerospace & Defense	17	\$76,600	\$80,147	\$68,000 - 115,000
Automotive & Transport Equipment	28	\$72,000	\$70,028	\$40,000 - 89,440
Chemicals	4	\$69,500	\$68,000	\$58,000 - 75,000
Computer Hardware	11	\$85,000	\$88,618	\$70,000 - 105,000
Computer Software & Services	25	\$91,500	\$87,444	\$65,000 - 150,000
Consulting	14	\$70,500	\$74,834	\$60,000 - 130,000
Consumer Products	6	\$62,750	\$63,417	\$58,000 - 72,000
Electronics	3	\$80,000	\$77,667	\$71,000 - 82,000
Energy	13	\$76,000	\$77,692	\$58,000 - 120,000
Engineering Services	19	\$70,000	\$72,462	\$62,000 - 95,000
Financial Services	3	\$85,000	\$87,667	\$80,000 - 98,000
Government	5	\$64,000	\$66,600	\$54,000 - 80,000
Healthcare Products & Services	9	\$62,000	\$65,111	\$54,000 - 82,000
Manufacturing	4	\$66,500	\$75,500	\$63,000 - 106,000
Materials & Construction	3	\$50,000	\$50,000	\$45,000 - 55,000
Pharmaceutical	3	\$73,000	\$73,667	\$70,000 - 78,000
Telecommunications	9	\$85,000	\$85,613	\$82,000 - 95,000

\* Categories with two or less respondents were omitted.

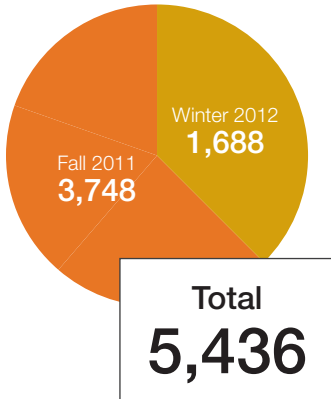


# Recruiting Season

## ENGenius.Jobs Postings

Term	Jobs Posted
Summer/Fall 2011	3,357
Winter/Spring 2012	3,591
<b>Total</b>	<b>6,948</b>

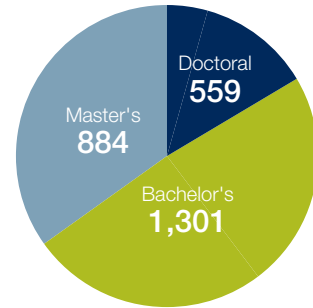
### On-campus Interviews



### Organizations Conducting On-campus Interviews



### Organizations Requesting Specific Degree Levels





## Undergraduate Majors Most Requested by Organizations

Major	Requests*	% of Jobs
Computer Science	3,281	61%
Computer Engineering	3,178	59%
Electrical Engineering	2,992	56%
Mechanical Engineering	2,694	50%
Industrial & Operations Engineering	1,935	36%
Chemical Engineering	1,806	34%

\* 5,350 job postings sought undergraduate degree candidates from July 2011 to June 2012.



## Top Hiring Companies

Company	Full-time	Intern	Co-op	Total Hires
General Electric	11	28	18	<b>57</b>
Microsoft Corporation	19	11	2	<b>32</b>
Qualcomm, Inc.	12	18	-	<b>30</b>
Ford Motor Company	17	11	-	<b>28</b>
Toyota (TEMA)	2	8	18	<b>28</b>
Boeing Company, The	17	10		<b>27</b>
Intel Corporation	8	13	3	<b>24</b>
Amazon	12	7	1	<b>20</b>
Stryker Instruments	5	11	2	<b>18</b>
Dow Chemical USA	7	6	4	<b>17</b>
General Motors	10	5	2	<b>17</b>
Schlumberger	12	4	1	<b>17</b>
JP Morgan Chase	4	12	-	<b>16</b>
Texas Instruments	5	11	-	<b>16</b>
Accenture	10	5	-	<b>15</b>
Continental Automotive	3	6	6	<b>15</b>
Cummins, Inc.	10	4	1	<b>15</b>
DTE	1	4	10	<b>15</b>

Complete list available at <http://career.engin.umich.edu/employers/companies.html>





College of Engineering

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This publication includes post-graduate  
and salary data reported as of November 1, 2012.

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